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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 2

of

3

**Complete if Known**

Application Number	10/072,728
Filing Date	February 7, 2002
First Named Inventor	Chester L. Schuler
Art Unit	2675
Examiner Name	Ming-Hun Liu
Attorney Docket Number	IMMR092/02US

**OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		PATRICK, "Design, Construction, and Testing of a Fingertip Tactile Display for Interaction with Virtual and Remote Environments," <i>Master of Science Thesis</i> , MIT, Aug. 1990, archived Nov. 8, 1990.
		CALDER, "Design of A Force-Feedback Touch-Introducing Actuator For Teleoperator Robot Control," <i>Bachelor of Science Thesis</i> , MIT, May 1983, archived June 23, 1983.
		WIKER, "Teletouch Display Development: Phase 1 Report," <i>Technical Report 1230</i> , Naval Ocean Systems Center, San Diego, July 1988.
		BLISS, "Optical-to-Tactile Image Conversion for the Blind," <i>IEEE Transactions on Man-Machine Systems</i> , Vol. MMS-11, No. 1, March 1970.
		JOHNSON, "Shape-Memory Alloy Tactile Feedback Actuator," <i>Armstrong Aerospace Medical Research Laboratory</i> , AAMRL-TR-90-039, August, 1990.
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		AUKSTAKALNIS et al., "Silicon Mirages: The Art and Science of Virtual Reality," ISBN 0-938151-82-7, pp. 129-180, 1992.
		EBERHARDT et al., "Inducing Dynamic Haptic Perception by The Hand: System Description and Some Results," <i>DSC-Vol. 55-1, Dynamic Systems and Control: Volume 1</i> , ASME 1994.
		GOBEL et al., "Tactile Feedback Applied to Computer Mice," <i>International Journal of Human-Computer Interaction</i> , Vol. 7, No. 1, pp. 1-24, 1995.
		PIMENTEL et al., "Virtual Reality: through the new looking glass," 2 <sup>nd</sup> Edition; McGraw-Hill, ISBN 0-07-050167-X, pp. 41-202, 1994.
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		KACZMAREK et al., "Tactile Displays," <i>Virtual Environment Technologies</i> , Chap. 9, pp. 349-414.
		LAKE, "Cyberman from Logitech," at <a href="http://www.ibiblio.org/GameBytes/issue21/greviews/cyberman.html">http://www.ibiblio.org/GameBytes/issue21/greviews/cyberman.html</a> , 1994.
		YAMAKITA et al., "Tele-Virtual Reality of Dynamic Mechanical Model," <i>Proceedings of the 1992 IEEE/RSJ International Conference on Intelligent Robots and Systems</i> , Raleigh, NC, July 7-10, 1992

Examiner  
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/Srilakshmi Kumar/

Date  
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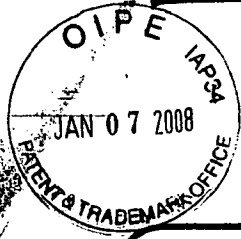
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		Filing Date	February 7, 2002		
		First Named Inventor	Chester L. Schuler		
		Art Unit	2675		
		Examiner Name	Ming-Hun Liu		
Sheet	3	of	3	Attorney Docket Number	IMMR092/02US

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		<del>NOLI, "Man-Machine Tactile," SID Journal, July/August 1972 Issue.</del>	
		ROSENBERG, "Virtual Fixtures: Perceptual Overlays Enhance Operator Performance in Telespresence Tasks," Ph.D. Dissertation, Stanford University, June 1994.	

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Sheet **5** of **11**

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Attorney Docket Number	IMMR092/02US

Examiner Initials	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)			
		DE	4 400 790		05-18-1995		
		EP	0 349 086		03-01-1990		
		EP	0 111 992		09-1983		
		EP	0085518	A1	08-10-1983		
		EP	0007580	A1	07-27-1994		
		EP	0265011		04-27-1988		
		EP	0626634	A2	11-30-1994		
		GB	0 326 439		02-08-1991		
		GB	2 235 310	A	06-1990		
		JP	H4-8381		01/13/1992	Taito Corporation	
		JP	H2-185278		07/19/1990	Taito Corporation	
		JP	H7-24147		01/27/1995	Taito Corporation	
		JP	H5-192449		08/03/1993	Taito Corporation	
		JP	H5-86387		11-22-1993		
		JP	H6-210065		08-02-1994		
		JP	H4-92691		03-25-1992		
		JP	S62-194389		12-10-1987		
		WO	01/11775	A1	02-15-2001	Peter Gold	
		WO	9520787		08-03-1995		
		WO	9532459		11-30-1995		
		WO	9721160		06-12-1997		
		WO	92/00559		01-09-1992		

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		SCANNELL, "Taking a Joystick Ride," Computer Currents, Boston Edition, Vol. 9, No. 11, November 1994.
		Component Maintenance Manual With Illustrated Parts List, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 28 January 2002 (3 pages).
		"Technical Manual Overhaul Instructions With Parts Breakdown, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 15 July 1980 (23 pages).
		IBM Technical Disclosure Bulletin, Vol. 38, No. 8, 1995, pp. 625-626.
		ZAN et al., "Manual resolution of Compliance When Work and Force Cues are Minimized," DSC-Vol. 49, Advances in Robotics, Mechatronics and Haptic Interfaces ASME 1993, The America Society of Mechanical Engineers, pp. 99-104, (11/28-12/03/1993)
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		KOTOKU, "A Predictive Display with Force Feedback and its Application to Remote Manipulation System with Transmission Time Delay," 0-7803-0737-2/92 IEEE, pp. 239-246, (07/07-10/1992)

None of the references are considered. /SKK/

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/Srilakshmi Kumar/

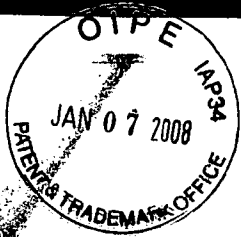
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		WRIGHT, "A Manufacturing Hand," ISSN 0736-5845/85 (704), pp. 13-23, (1985)	
		Batter, et al., "Grove-I: A Computer Display to the Sense of Feel", University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA	
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		Russo, "The Design and Implementation of a Three Degree-of-Freedom Force Output Joystick", Submitted to the Department of Mechanical Engineering on May 11, 1990.	
		Rosenberg, Louis B., "The Use of Virtual Fixtures to Enhance Operator Performance in Time Delayed Teleoperation, Armstrong Laboratory, March 1993, pp. 1-45.	
		Rosenberg, Louis B., "Perceptual Design of a Virtual Rigid Surface Contact," Center for Design Research, Stanford University, Air Force Material Command, April 1993, pp. 1-41.	
		Atkinson, William D. et al, "Computing with Feeling," Comput. & Graphics, Vol. 2, No. 2-E, pp. 97-103.	
		Wiker, Steven F. et al., "Development of Tactile Mice for Blind Access to Computers: Importance of Stimulation Locus, Object Size, and Vibrotactile Display Resolution." Proceedings of the Human Factors Society 35 <sup>th</sup> Annual Meeting 1991, pp. 708-712.	
		Burdea, Grigore et al., "Dextrous Telerobotics with Force Feedback-An Overview," Robotica 1991, Vol. 9.	
		Gotow, J.K., et al., "Perception of Mechanical Properties at the Man-Machine Interface," IEEE 1987, pp.688-689.	
		Adelstein Bernard D. et al., "A High Performance Two Degree-of-Freedom Kinesthetic Interface," Massachusetts Institute of Technology, 1992, pp. 108-112.	
		Kotoku, T. et al., "Environment Modeling for the Interactive Display (EMID) used in Telerobotic Systems", IROS, Nov. 1991, pp. 999-1004.	

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		Herndon, J. N. "The State of the Art Model M-2 Maintenance System", Proceedings of the 1984 National Topical Meeting on Robotics and Remote Handling in Hostile Environments, American Nuclear Society, pp. 59-66.
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		Snow, E. et al., "Compact Force Reflecting Hand Controller," NASA Tech Brief Vol. 15, No. 4, Item 153, April 1991, pp. 1-3, 1a-15a.
		Fischer, P. et al., "Specification and Design of Input Devices for Teleoperation", IEEE Conference on Robotics and Automation, IEEE, 1990, pp. 540-545.
		Akamatsu, M., et al. "Multimodal Mouse: A Mouse-Type Device with Tactile and Force Display", Presence, Vol. 3, No. 1, Winter 1994, pp. 73-80.
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		Yokokohji, Y., et al., "What You Can See is What You Can Feel - Development of a Visual/Haptic Interface to Virtual Environment," IEEE Jan. 1996, pp. 46-54.
		Rosenberg L. et al., "Perceptual Decomposition of Virtual Haptic Surfaces," Proceedings IEEE Symposium on Research Frontiers in Virtual Reality, Oct. 1993.
		Rosenberg L., "Virtual Fixtures as Tools to Enhance Operator Performance in Telepresence Environments", SPIE Telemanipulator Technology, 1993.
		Rosenberg, L., "Virtual Haptic Overlays Enhance Performance in Telepresence Tasks", SPIE 1994.

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Examiner Signature	/Srilakshmi Kumar/	Date Considered	03/28/2008
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		Howe, R. et al., "Task Performance with a Dextrous Teleoperated Hand System," Proceedings of SPIE, Vol. 1833, Nov. 1992.
		Su, S. Augustine, "The Virtual Panel Architecture: A 3D Gesture Framework," IEEE Jan. 1993.
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		Tan, H. et al, "Human Factors for the Design of Force-Reflecting Haptic Interfaces," ASME WAM 1994, pp. 1-11.
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		Kelley, A.J. et al., "MagicMouse: Tactile and Kinesthetic Feedback in the Human-Computer Interface using an Electromagnetically Actuated Input/Output Device," Dept. of Elec. Engineering, Univ. of British Columbia, 1993, pp. 1-27

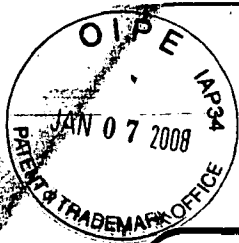
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		Iwata, H., "Artificial Reality with Force-feedback: Development of Desktop Virtual Space with Compact Master Manipulator," Computer Graphics, Vol. 24, No. 4, 1990, pp. 165-170.	
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None of the references are considered. /SKK/

Examiner Signature	/Srilakshmi Kumar/	Date Considered	03/28/2008
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Sheet 11 of 11

**Complete if Known**

Application Number	10/072,728
Filing Date	February 7, 2002
First Named Inventor	Chester L. Schuler
Art Unit	2675
Examiner Name	Ming Hun Liu
Attorney Docket Number	IMMR092/02US

None of the references are considered. /SKK/

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
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